

clinicopathological features was analyzed in 448 CRC, 229 normal colon mucosa and 24 colorectal adenomas using tissue microarray technology. Treatment with leptin resulted in increased proliferation of CRC cell lines and involved activation of PI3K/AKT signaling pathway. Pretreatment with Ob-R siRNA or PI3K inhibitor inhibited these responses. Ob-R was significantly over expressed in primary CRC relative to adenomas and normal colonic mucosa. In primary CRC, Ob-R significantly correlated with leptin expression, early stage and well differentiated tumors. Intriguingly, patient with Ob-R positive tumors showed significantly better overall survival ( $p=0.0098$ ). Leptin plays a critical role in CRC carcinogenesis through PI3K/AKT pathway via Ob-R. Ob-R is a prognostic marker associated with better survival.

#### **P-129 INTEGRATED NETWORK OF COLORECTAL CANCER PREVENTION IN IRAN: AN APPROACH FOR ENHANCING QUALITY OF SCREENING**

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Colorectal cancer (CRC) is one of the most prevalent cancers and leading cause of cancer mortality worldwide. Colorectal cancer is third common cancer in women and 5th in Iranian men and incidence of colorectal cancer is increased during the last 25 years. Colorectal cancer incidence and mortality are reduced with regular screening. Colorectal cancer screening depends on integration of information between clinical, pathology and genetics departments. Integration of information networks for diagnostic and screening tests facilitate quality improvement of programs and clear communication among health care providers. In this study was presented integrated network of colorectal cancer prevention in IRAN. Information with standard content was shared between clinical, pathology and genetics department. Need information of departments were met quickly in educational, clinical and research fields. Integrated information in colorectal cancer screening enhances decision making in various stage of prevention. Information management has the key role to increase greatly the efficiency of screening program. Integration in Preprocedure, intraprocedure, and postprocedure colonoscopy data and standard pathology and genetic data can be used to improve the quality of activities.

#### **P-130 NUTRITIONAL HABITS IN PROTECTION FROM CANCER AND HEALTHY LIFESTYLE OF STUDENTS IN SCHOOL OF HEALTH**

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Objective: To examine the relationship of cancer prevention-related nutrition behavior and healthy lifestyle of students.

Method: Research was a semi-experimental. For research was obtained permission from dean of school and students. Total were 79 students in first and second class. The planned education to them about nutrition, exercise in protection from cancer was carried out for 5 groups in 10 hours. The data collected by questionnaire of demographical, nutrition habits (about fruits, vegetables, genetically modified organisms, fast foods, etc.) and Health Promotion Life-Style Profile (HPLP). These forms were applied at the beginning and after 6 months from training. Students were identified in two groups as healthy and unhealthy fed. Data for evaluating was used number-percentage, Chi Square, McNemar and dependent groups t test. Results: Students were 73.4% female, 84.8% nurses, 48.1% first-class. Of students were 63.2% with housing and 29.1% staying alone. 22.8% of them had cancer history in family. They were found 13.9% obese at beginning but they did not lose weight after six months. Students had healthy fed 49.4% before training, 50.6% after six months. It wasn't statistically significant difference ( $p > 0.05$ ). Healthy lifestyle mean scores of groups weren't difference between before training and after six months from training ( $p > 0.05$ ). But healthy lifestyle mean scores of them increased after six months from training. 58.8% of students who were cancer history in family had healthy fed. It wasn't significant difference between healthy fed and cancer history in family. Conclusion: Nutrition education would provide habits in protection from cancer.

#### **P-131 MECHANISMS OF BLACK RICE BRAN EXTRACTS ON PROLIFERATION AND APOPTOSIS OF CANCER CELLS**

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The bran of Riceberry, a Thai black rice cultivar developed for medical benefits, was evaluated for the potential anti-cancer activities and its mechanisms of action using various bioassays. Colonic carcinoma (Caco-2), breast adenocarcinoma (MCF-7) and acute myelocytic leukemia (HL-60) cell lines were treated with dichloromethane (DCM) or methanol (MeOH) extracts of Riceberry bran (BRB) for 24-72 hours. Percent cell proliferation inhibition was performed by MTT and BrdU incorporation assays. Cell cycle distribution was analyzed by Flow cytometry and apoptosis induction mechanisms were determined by biochemical assays. The results showed efficient cell proliferation inhibition exerted by the DCM extract than the MeOH extract. The DCM extract caused cell cycle arrest of MCF-7 at G0/G1 phase and induced apoptosis of Caco-2 cell after 48 hour treatment. Meanwhile, the MeOH extract arrested cell cycle of MCF-7 and Caco-2 cells at the S phase. Both the DCM and MeOH extracts strongly induced apoptosis of HL-60 cell. Arrest in cell cycle by DCM extract was correlated with cell cycle-associated protein (cyclins) by down-regulation of cyclin D1, but arrest in cell cycle by MeOH extract was related to up-regulation of cyclin B1 and down-regulation of cyclin D1. The consequence up-regulation of p53 and decrease inactive caspase-3 expression indicated apoptosis potential and its pathway after cell cycle arrest. The results suggested that both extracts of Riceberry contained bioactive constituents that have anti-cancer properties. The efficacy of apoptosis induction was much potent in HL-60 than MCF-7 and Caco-2.

#### **P-132 PREVENTION OF CERVICAL CANCER: KNOWLEDGE AND ATTITUDE OF MALAYSIAN SECONDARY SCHOOL STUDENTS**

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